

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER U-R-17-2

Relating to Certification of New Heavy-Duty Off-Road Equipment Engines

GENERAC CORPORATION

Pursuant to the authority vested in the Air Resources Board by Sections 43000.5, 43013 and 43018 of the Health and Safety Code; and,

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That the following Generac Corporation 1997 model-year engine, with rated power between 175 and 750 horsepower, and exhaust emission control systems are certified as described below for use in heavy-duty off-road equipment:

Typical Equipment Usage: Generator

Fuel Type: Diesel

<u>Engine Family</u>	<u>Liters (Cubic Inches)</u>	<u>Exhaust Emission Control Systems and Special Features</u>
VGN13.R6DARA	13.0 (810)	Turbocharger

Engine models and codes are listed on attachments. Production engines shall be in all material respects the same as those for which certification is granted.

The total hydrocarbons (THC), carbon monoxide (CO), nitrogen oxides (NOx), and particulate matter (PM) certification exhaust emission standards, in grams per brake horsepower-hour (g/bhp-hr), and the opacity of smoke emission standards, in percent (%), during acceleration (Accel), lugging (Lug), and peak (Peak) modes, for this engine family are (Title 13, California Code of Regulations, Section 2423):

<u>Exhaust Emissions (g/bhp-hp)</u>				<u>Smoke Opacity (%)</u>		
<u>THC</u>	<u>CO</u>	<u>NOx</u>	<u>PM</u>	<u>Accel</u>	<u>Lug</u>	<u>Peak</u>
1.0	8.5	6.9	0.4	20	15	50

The THC, CO, NOx and PM exhaust emission certification values, in g/bhp-hr, and the opacity of smoke emission certification values, in percent (%), for this engine family are:

<u>Exhaust Emissions (g/bhp-hr)</u>				<u>Smoke Opacity (%)</u>		
<u>THC</u>	<u>CO</u>	<u>NOx</u>	<u>PM</u>	<u>Accel</u>	<u>Lug</u>	<u>Peak</u>
0.3	0.8	5.4	0.1	-	6	-


BE IT FURTHER RESOLVED: That the listed engine models comply with the "Exhaust Emission Standards and Test Procedures--Heavy-Duty Off-Road Diesel Cycle Engines" (Title 13, California Code of Regulations, Section 2423) for the aforementioned model year.

BE IT FURTHER RESOLVED: That the listed engine models also comply with the "Emission Control Labels--1996 and Later Heavy-Duty Off-Road Diesel Cycle Engines" (Title 13, California Code of Regulations, Section 2424) for the aforementioned model year.

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the materials to demonstrate certification compliance with the Board's emission control system warranty provisions (Title 13, California Code of Regulations, Section 2425 et seq.).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

Executed at El Monte, California this 18<sup>th</sup> day of March 1997.



R. B. Summerfield, Chief  
Mobile Source Operations Division

## HEAVY-DUTY OFF-ROAD DIESEL ENGINES

Manufacturer: GENERAC CORPORATION Engine Family: VGN13.R6DARA  
Displacement: 13.267/809.6 Liters/Cubic Inches Engine Config: I6/OHV  
All Codes in Engine Fam: CA \_ 49S \_ 50S \* Cert. Test Procedures: ARB \_\_\_ EPA \*  
Valves/Ports per Cylinder: Two Strokes per Combustion Cycle: Four  
Maximum rated Power: 280.0 HP ( 208.9 Kw) @ 1800 RPM  
Ignition: Compression \* Compression with Glow Plug \_\_\_ Spark \_\_\_  
Fuel Type(s): Dedicated \* Flex-Fuel \_\_\_ Dual-Fuel \_\_\_ Diesel \* M100 \_\_\_ M85 \_\_\_  
CNG \_\_\_ LNG \_\_\_ LPG \_\_\_ Other (specify) \_\_\_\_\_  
Diesel Cert. Fuel: 40 CFR 86.113-94 \* Other (specify) \_\_\_\_\_  
Primary Service Equipment: Generators  
Exhaust ECS (e.g. OC, TWC, PTOX, IFI, TC, CAC): EM, TC  
(Use abbreviations per SAE J1930 JUN93)

Engine Model (Eng Code)	Rated HP @ RPM	Fuel Rate @ Rated HP, mm3/str (lbs/hr)	Fuel Pump & Injector Part No.	ECM/PCM Part No.	EGR Valve Part No.	Catalytic Converter Part No.
13.3 T	280 @ 1800	166	Fuel pump assembly: 476-59089 Injector: 489-59089	N/A	N/A	N/A

Issue Date:	Revision No.	1	2	3	4	5	6
12/09/96	Revision Date						